

MQA-5 BDE: ALO DUTIES (MAINTENANCE)

PREREQUISITES: MQA-4

REQUIRED READING: Squadron Maintenance Memorandum of Agreement (MOA); 4-Star MOA

PURPOSE: Familiarize newly assigned ALOs with maintenance duties by providing them with an overview of MRC-144 maintenance requirements.

Introduction - (Slide 2)

Maintaining the Mobile Radio Communications Central (MRC)-144 weapon systems, M113 tracked personnel vehicle, and other equipment assigned to your flight or squadron is critical to combat readiness. (The MRC-144 consists of a high mobility multi-purpose wheeled vehicle (HMMWV) M998 or M1097A2, and a GRC-206 radio pallet. These are the Tactical Air Control Party (TACP) tools of warfare. Before you can make smokin' holes on the battlefield, you must be able to *get to* the battlefield, *talk to fighters over* the battlefield, and *survive on* the battlefield. Therefore, the maintenance duties of an ALO are among the most important you will encounter. Areas to be discussed include:

- ☐ Vehicle Maintenance
- ☐ Radio Maintenance
- ☐ Equipment Maintenance

Vehicle Maintenance – (Slide 3)

Vehicle maintenance for the HMMWV's assigned to your unit is accomplished, except for minor maintenance, by the Army. Because of this, one of your primary duties as an ALO is to liaison with the Army motorpool to keep your vehicles running at 100%. If your squadron supports a brigade, the brigade headquarters and headquarters company (HHC) is responsible for fixing your vehicles. It becomes important, then, to clarify with the brigade commander exactly what his maintenance responsibilities are according to the "Four-Star Memorandum of Agreement" (Acrobat Reader File Attachment 1) and your squadron's Maintenance MOA (Attachment 2). Air Force vehicles, because they are huge combat multipliers, should be treated as "Pacer" items for Army maintenance repair purposes. This means that they are to receive the same priority for Army maintenance as an Abrams tank. If the brigade commander is on board, you will have few maintenance problems. You should also meet with the HHC commander and find out what person is responsible for fixing Air Force vehicles. The policy is governed at the 4-star level, implemented at the brigade commander level, enforced at the HHC commander level, but the sergeants still turn the wrenches, so let them see your interest as well. Making these relationships a priority will also help your effort to obtain and train with your assigned M113's on a regular basis.

Every armored brigade has about 3 M113s assigned to the Air Force, 1 per battalion. Optimally, these "tracks" are parked at the Air Force motorpool in order to maintain the GRC-206 radio pallet that should be installed, and in order to foster continuous training with the M113s. (The track commander (TC) and driver assigned to the Air Force M113s should be available for training as well.) The TC and driver will perform the 5988 inspections (discussed below) for the M113s. The "ALO Tracks" can be fixed by Army mechanics in the Air Force motorpool, and this is recommended. Because the ALO Tracks are usually used for everything but the Air Force, the Army may not want to let go. Persistence is crucial. The 4-Star MOA requires tracked vehicles be assigned for Air Force use.

Daily maintenance inspections are an important part of keeping the systems at 100%. The AF Form 1800 is used to track daily inspections, and should be performed before vehicle usage. Ensure that this occurs. (Look at it like checking the forms before accepting a jet.) Air Force motorpool airmen can usually fix minor maintenance issues discovered during a Form 1800 inspection. (Get with your motorpool NCOIC for exact capabilities.) AF T.O. 36A12-1A-2091-1 (the HMMWV Dash-1) spells out all maintenance issues in excruciating detail, and each

system should have a copy of this publication. If Air Force personnel cannot fix a problem quickly and easily, it will have to be fixed at the supporting Army motorpool or Director of Logistics (DOL) motorpool, depending on the exact nature of the problem. Before this can happen, the discrepancies must be transferred to an Army Form 5988E. (Each flight's vehicle representative usually accomplishes this weekly.) The 5988's are then hand-carried to the appropriate Army motorpool. All discrepancies should also be routed through the Air Force motorpool vehicle NCO to ensure standardization and tracking is accurate.

Your vehicle maintenance NCOIC is an important part of the maintenance process. The vehicle maintenance NCOIC files 30 day reports through Air Force channels which track the maintenance performed on each vehicle. Additionally, if Army support is lacking or unnecessarily slow, the NCOIC and ALO can attend the Army headquarters Monthly Maintenance Review (MMR) on your post in order to address your problems with Army higher-ups. Also be aware that regularly scheduled vehicle preventative maintenance inspections (PMIs) are done every 12 months and are scheduled by your supporting vehicle maintenance personnel. For all of these reasons you should cultivate a good relationship with the vehicle maintenance NCOIC. He will almost always be able to answer your questions regarding the maintenance process and help keep your war-fighting vehicles in good condition.

Radio Maintenance – (Slide 4)

To create decisive effects on the battlefield good communication is paramount. If the radios are not working, the CAS will RTB with bombs hanging on the jet. For this reason, radio maintenance is a primary concern of every ALO. Each system operator maintains radios individually. ROMADs (Radio Operator, Maintainer, and Driver) and ETACs (Enlisted Terminal Attack Controller) are assigned portable and vehicle system radio equipment, and are responsible for maintenance of that equipment. (See Attachment 3 for complete list of equipment.) Personal ALO interaction in the training and maintenance process is the best way to keep all radio equipment working properly.

Additionally, bi-annual PMI's are accomplished on all vehicle and portable radios and communications equipment. These inspections are done by Air Force radio maintenance personnel and are used to spot problems that ETACs and ROMADs cannot detect during daily usage. The average PMI takes approximately 2 days, and the PMI's are tracked at the squadron and group levels. Exact procedures are found in T.O. 31R2-2GRCZ06-6WC-1-2, found in your radio maintenance shop. (See Attachment 4 for example inspection checklists.)

To make the radios work, batteries are required. The Army (see Squadron Maintenance MOA & 4-Star MOA) is responsible for providing batteries for training and wartime usage. The following chart lists the number of batteries required for a typical unit supporting a brigade. (Attachment 5 contains a formal battery request letter.) The following chart specifies the number of batteries required for DRB-1/Contingencies, NTC, and Training. The first column is for a 72-hour autonomous period, with resupply starting after that timeframe, the second column covers the NTC scenario and the third covers day-to-day training per quarter and will need to be replenished as necessary on a one-for-one swap. *Note: Column 1 is based on a contingency deployment worst case scenario where all units are in full contact with the enemy for a 72-hour period.

Battery Type	Column 1	Column 2	Column 3
BA-5590/U	216(2 cases per vehicle)	162(1 1/2 cases per vehicle)	108(1 case per vehicle)
BA-5600/U	72	27	27
BA-5800/U	90	72	36
BA-5372/U	72	36	36
AA	162	90	36
3 volt	27	27	6
9 volt	18	18	9
LS6	9	0	2

The following is a detailed chart of our equipment, which batteries the item uses, how many to provide power and the average lifespan of the batteries for each piece of equipment.

Equipment	Batt. Type	Battery NSN	# of items x battery	Lifespan of Batt.
Radio Set Control (RSC)	BA-5590/U	6135-01-036-3495	2 RSC's = 4 batt.	90 hours
PRC-104 HF Radio	"	"	1 PRC-104 = 2 batt.	18 - 20 hours
PRC-113 UHF/VHF-AM	"	"	1 PRC-113 = 2 batt.	20 hours
PRC-119 VHF-FM	"	"	1 PRC-119 = 1 batt.	18 - 20 hours
AN/PSC-2A DCT	BA-5600/U	6135-01-168-2944	1 DCT = 1 batt.	10 - 18 hours
PSN-11 GPS	BA-5800/U	6153-99-760-9742	1 GPS = 1 batt.	10 - 15 hours
PSN-11 GPS Mem. Batt.	LS6	6135-01-301-8776	1 GPS = 1 batt.	1 year
AN/PVS-7b NVD	AA	6153-00-985-7845	2 PVS-7b = 4 batt.	6 - 8 hours
AN/PRC-119 HUB batt.	BA-5372/U	6135-00-214-6441	2 PRC-119 = 2 batt.	6 months
AN/KY-57 TSEC	"	"	4 KY-57 = 4 batt.	6 months
AN/KY-99 TSEC	"	"	2 KY-99 = 2 batt.	6 months
GCP-1A IR pointer	AA	6153-00-985-7845	2 GCP-1A = 2 batt.	6 hours
AN/CYZ-10	3 volt	6135-01-351-1131	1 CYZ-10 = 1 batt.	3 months

As always, personal interaction with the radio maintenance NCOIC is recommended. He has been doing this job for years and knows the "in's and out's" of radio maintenance.

Equipment Maintenance – (Slide 5)

Each person in your squadron is issued personal equipment, the most important being the helmet, load bearing equipment (LBE, or web belt), and gas mask. Central Issue Facility (CIF) issues personal clothing and field gear, and the squadron should issue a "FAC kit" including a compass, flashlight, and other required CAS items. This equipment should be accounted for yearly, and scrubbed down after each field exercise. Tools are issued to ROMADs for radio related maintenance. Additionally, weapons will be issued to each airman (stored in the squadron armory), and will be cleaned after each usage. The crucial issue is to emphasize accountability. The lockers where the ROMAD's and ETAC's equipment is stored should be locked and standardized for easy tracking. Discourage the borrowing and lending of equipment, as this leads to missing equipment.

Conclusion – (Slide 6)

Maintaining the equipment we take to war is crucial to our combat power. Trust your NCO's, but verify compliance by good supervision. Well maintained vehicles and radios are easy to spot, much like well maintained jets, so put good effort into making sure that you are mission ready.